

SEQUENCE LISTING

<110> CANON KABUSHIKI KAISHA, et al.

<120> Kit for immobilizing organic substance, organic substance-immobilized structure, and manufacturing methods therefor

<130> 10002556W001

<150> JP2004-016858

<151> 2004-01-26

<160> 181

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Gln Ser Ser Ile Thr Thr Arg Asn Pro Phe Met Thr
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Phe Met Asn His His Pro Asn Ser Gln Gln Tyr His
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Gln Pro His Met His Arg Ser Ser His Gln Asp Gly
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Asn Thr Thr Met Gly Pro Met Ser Pro His Ser Gln
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Asp His Gln Leu His Arg Pro Pro His Met Met Arg
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Val Thr Leu His Thr Val Asp His Ala Pro Gln Asp
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Ser Val Ser Val Gly Met Lys Pro Ser Pro Arg Pro
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<400> 19
Ser Met Met His Val Asn Ile Arg Leu Gly Ile Leu
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Leu Glu Pro Leu Pro His Thr Pro Arg Met Tyr Ala
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Gln Leu Tyr Glu Pro Asp Ser Gly Pro Trp Ala Pro
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His His Pro Met Tyr Ser Met Thr Arg Ala Leu Pro
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Gly Ser Ala His Ser Arg Asn Asp Ala Ala Pro Val
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His Ser Pro Leu Met Gin Tyr His Met Ser Gly Thr
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Thr Ala His Met Thr Met Pro Ser Arg Phe Leu Pro
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<400> 32

Ala Cys Thr Pro Lys Pro Gly Lys His Cys

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<210> 33

<211> 1680

<212> DNA

<213> Pseudomonas cichorii YN2 ; FERM BP-7375

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aagaacgtac tgctggtaa atccggcttg caaccgacca gcgatgaccg tcgtttcgcc 240

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<210> 34

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<212> DNA

<213> Pseudomonas cichorii YN2 ; FERM BP-7375

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<213> *Pseudomonas cichorii* YN2 ; FERM BP-7375

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					20			25				30			

Ala	Ser	Ala	Arg	Met	Val	Leu	Arg	Gln	Ala	Ile	Lys	Gln	Pro	Val	His
				35				40				45			

Ser Val Lys His Val Ala His Phe Gly Leu Glu Leu Lys Asn Val Leu
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Leu Gly Lys Ser Gly Leu Gln Pro Thr Ser Asp Asp Arg Arg Phe Ala
65 70 75 80

Asp Pro Ala Trp Ser Gln Asn Pro Leu Tyr Lys Arg Tyr Leu Gln Thr
85 90 95

Tyr Leu Ala Trp Arg Lys Glu Leu His Asp Trp Ile Asp Glu Ser Asn
100 105 110

Leu Ala Pro Lys Asp Val Ala Arg Gly His Phe Val Ile Asn Leu Met
115 120 125

Thr Glu Ala Met Ala Pro Thr Asn Thr Ala Ala Asn Pro Ala Ala Val
130 135 140

Lys Arg Phe Phe Glu Thr Gly Gly Lys Ser Leu Leu Asp Gly Leu Ser
145 150 155 160

His Leu Ala Lys Asp Leu Val His Asn Gly Gly Met Pro Ser Gln Val
165 170 175

Asn Met Gly Ala Phe Glu Val Gly Lys Ser Leu Gly Val Thr Glu Gly
180 185 190

Ala Val Val Phe Arg Asn Asp Val Leu Glu Leu Ile Gln Tyr Lys Pro
195 200 205

Thr Thr Glu Gln Val Tyr Glu Arg Pro Leu Leu Val Val Pro Pro Gln
210 215 220

Ile Asn Lys Phe Tyr Val Phe Asp Leu Ser Pro Asp Lys Ser Leu Ala
225 230 235 240

Arg Phe Cys Leu Arg Asn Asn Val Gln Thr Phe Ile Val Ser Trp Arg
245 250 255

Asn Pro Thr Lys Glu Gln Arg Glu Trp Gly Leu Ser Thr Tyr Ile Glu
260 265 270

Ala Leu Lys Glu Ala Val Asp Val Val Thr Ala Ile Thr Gly Ser Lys
275 280 285

Asp Val Asn Met Leu Gly Ala Cys Ser Gly Gly Ile Thr Cys Thr Ala
290 295 300

Leu Leu Gly His Tyr Ala Ala Ile Gly Glu Asn Lys Val Asn Ala Leu
305 310 315 320

Thr Leu Leu Val Ser Val Leu Asp Thr Thr Leu Asp Ser Asp Val Ala
325 330 335

Leu Phe Val Asn Glu Gln Thr Leu Glu Ala Ala Lys Arg His Ser Tyr
340 345 350

Gln Ala Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala Trp
355 360 365

Met Arg Pro Asn Asp Leu Ile Trp Asn Tyr Trp Val Asn Asn Tyr Leu
370 375 380

Leu Gly Asn Glu Pro Pro Val Phe Asp Ile Leu Phe Trp Asn Asn Asp
385 390 395 400

Thr Thr Arg Leu Pro Ala Ala Phe His Gly Asp Leu Ile Glu Leu Phe
405 410 415

Lys Asn Asn Pro Leu Ile Arg Pro Asn Ala Leu Glu Val Cys Gly Thr
420 425 430

Pro Ile Asp Leu Lys Gln Val Thr Ala Asp Ile Phe Ser Leu Ala Gly
435 440 445

Thr Asn Asp His Ile Thr Pro Trp Lys Ser Cys Tyr Lys Ser Ala Gln
450 455 460

Leu Phe Gly Gly Asn Val Glu Phe Val Leu Ser Ser Ser Gly His Ile
465 470 475 480

Gln Ser Ile Leu Asn Pro Pro Gly Asn Pro Lys Ser Arg Tyr Met Thr
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Ser Thr Glu Val Ala Glu Asn Ala Asp Glu Trp Gln Ala Asn Ala Thr
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<211> 560

<212> PRT

<213> *Pseudomonas cichorii* YN2 ; FERM BP-7375

<400> 36

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Ser Thr Leu Arg Ser Val Ala Ala His Gly Leu Arg His Pro Val His
35 40 45

Thr Ala Arg His Ala Leu Lys Leu Gly Gly Gln Leu Gly Arg Val Leu
50 55 60

Leu Gly Asp Thr Leu His Pro Thr Asn Pro Gln Asp Arg Arg Phe Asp
65 70 75 80

Asp Pro Ala Trp Ser Leu Asn Pro Phe Tyr Arg Arg Ser Leu Gln Ala
85 90 95

Tyr Leu Ser Trp Gln Lys Gln Val Lys Ser Trp Ile Asp Glu Ser Asn
100 105 110

Met Ser Pro Asp Asp Arg Ala Arg Ala His Phe Ala Phe Ala Leu Leu
115 120 125

Asn Asp Ala Val Ser Pro Ser Asn Ser Leu Leu Asn Pro Leu Ala Ile
130 135 140

Lys Glu Ile Phe Asn Ser Gly Gly Asn Ser Leu Val Arg Gly Ile Gly
145 150 155 160

His Leu Val Asp Asp Leu Leu His Asn Asp Gly Leu Pro Arg Gln Val
165 170 175

Thr Arg His Ala Phe Glu Val Gly Lys Thr Val Ala Thr Thr Thr Gly
180 185 190

Ala Val Val Phe Arg Asn Glu Leu Leu Glu Leu Ile Gln Tyr Lys Pro
195 200 205

Met Ser Glu Lys Gln Tyr Ser Lys Pro Leu Leu Val Val Pro Pro Gln
210 215 220

Ile Asn Lys Tyr Tyr Ile Phe Asp Leu Ser Pro His Asn Ser Phe Val
225 230 235 240

Gln Phe Ala Leu Lys Asn Gly Leu Gln Thr Phe Val Ile Ser Trp Arg
245 250 255

Asn Pro Asp Val Arg His Arg Glu Trp Gly Leu Ser Thr Tyr Val Glu
260 265 270

Ala Val Glu Glu Ala Met Asn Val Cys Arg Ala Ile Thr Gly Ala Arg
275 280 285

Glu Val Asn Leu Met Gly Ala Cys Ala Gly Gly Leu Thr Ile Ala Ala
290 295 300

Leu Gln Gly His Leu Gln Ala Lys Arg Gln Leu Arg Arg Val Ser Ser
305 310 315 320

Ala Thr Tyr Leu Val Ser Leu Leu Asp Ser Gln Leu Asp Ser Pro Ala
325 330 335

Thr Leu Phe Ala Asp Glu Gln Thr Leu Glu Ala Ala Lys Arg Arg Ser
340 345 350

Tyr Gln Lys Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala
355 360 365

Trp Met Arg Pro Asn Asp Leu Ile Trp Ser Tyr Phe Val Asn Asn Tyr
370 375 380

Leu Met Gly Lys Glu Pro Pro Ala Phe Asp Ile Leu Tyr Trp Asn Asn
385 390 395 400

Asp Asn Thr Arg Leu Pro Ala Ala Leu His Gly Asp Leu Leu Asp Phe
405 410 415

Phe Lys His Asn Pro Leu Ser His Pro Gly Gly Leu Glu Val Cys Gly
420 425 430

Thr Pro Ile Asp Leu Gln Lys Val Thr Val Asp Ser Phe Ser Val Ala
435 440 445

Gly Ile Asn Asp His Ile Thr Pro Trp Asp Ala Val Tyr Arg Ser Thr
450 455 460

Leu Leu Leu Gly Gly Glu Arg Arg Phe Val Leu Ala Asn Ser Gly His
465 470 475 480

Val Gln Ser Ile Leu Asn Pro Pro Asn Asn Pro Lys Ala Asn Tyr Leu
485 490 495

Glu Gly Ala Lys Leu Ser Ser Asp Pro Arg Ala Trp Tyr Tyr Asp Ala
500 505 510

Lys Pro Val Asp Gly Ser Trp Trp Thr Gln Trp Leu Gly Trp Ile Gln
515 520 525

Glu Arg Ser Gly Ala Gln Lys Glu Thr His Met Ala Leu Gly Asn Gln
530 535 540

Asn Tyr Pro Pro Met Glu Ala Ala Pro Gly Thr Tyr Val Arg Val Arg
545 550 555 560

Lys His Thr Asp Ser Trp Trp Leu His Trp Gln Ala Trp Gln Ala Gln
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Arg Ser Gly Glu Leu Lys Lys Ser Pro Thr Lys Leu Gly Ser Lys Ala
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Tyr Pro Ala Gly Glu Ala Ala Pro Gly Thr Tyr Val His Glu Arg
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<223> Primer for PCR multiplication

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<400> 38
gggtttgagga tgctctggat gtg
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<210> 39
<211> 29
<212> DNA
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<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

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<210> 45

<211> 45

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

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<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:1

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<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:1

<400> 48

CCGAACCTCC ACCCCGCGCC TTAGAAGGCG GAGTCTGATT CGCATAAACG 50

<210> 49

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:2

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GATCCCAGTC TTTCGATTACG ACTCGGAATC CTTTATGAC TGGTGGAGGT TCGGAGCT 58

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<223> Complimentary chain for ssDNA of SEQ ID:2

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<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:3

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<210> 52

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:3

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<223> Coding chain for peptide of SEQ ID:4

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<212> DNA

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<223> Complimentary chain for ssDNA of SEQ ID:4

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<210> 55

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:5

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<223> Complimentary chain for ssDNA of SEQ ID:5

<400> 56

CCGAACCTCC ACCCCCCATCC TGATGAGAAC TCCGATGCAT ATGCGGCTGG 50

<210> 57

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:6

<400> 57

GATCCAATAC TACTATGGGG CCGATGAGTC CTCATAGTCA GGGTGGAGGT TCGGAGCT 58

<210> 58

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:6

<400> 58

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<210> 59

<211> 58

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<223> Coding chain for peptide of SEQ ID:7

<400> 59

GATCCCATCA TCATCCGGAG AATTGGATT CTACTTTCA GGGTGGAGGT TCGGAGCT 58

<210> 60

<211> 50

<212> DNA

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<400> 60

CCGAACCTCC ACCCTGAAAA GTAGAATCCA AATTCTCCGG ATGATGATGG 50

<210> 61

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:8

<400> 61

GATCCGCTGC TCATTTGAG CCTCAGACTA TGCCTATGAT TGGTGGAGGT TCGGAGCT 58

<210> 62

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:8

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CCGAACCTCC ACCAACATCA GGCATAGTCT GAGGCTCAAA ATGAGCAGCG 50

<210> 63

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:9

<400> 63

GATCCGATCA TCAGCTTCAT CGTCCTCCGC ATATGATGAG GGGTGGAGGT TCGGAGCT 58

<210> 64

<211> 50

<212> DNA

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<223> Complimentary chain for ssDNA of SEQ ID:9

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CCGAACCTCC ACCCCTCATC ATATGCGGAG GACGATGAAG CTGATGATCG 50

<210> 65

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:10

<400> 65

GATCCGTTTC GCGTCATCAG TCGTGGCATC CGCATGATCT TGGTGGAGGT TCGGAGCT 58

<210> 66

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:10

<400> 66

CCGAACCTCC ACCAAGATCA TCGGATGCC ACGACTGATG ACGCGAAACG 50

<210> 67

<211> 58

<212> DNA

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<220>

<223> Coding chain for peptide of SEQ ID:11

<400> 67

GATCCATGAT GCAGAGGGAT CATCATCAGC ATAATGCGCA GGGTGGAGGT TCGGAGCT 58

<210> 68

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:11

<400> 68

CCGAACCTCC ACCCTGCGCA TTATGCTGAT GATGATCCCT CTGCATCATG 50

<210> 69

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:12

<400> 69

GATCCGTTAC TCTTCATACG GTGGATCATG CGCCGCAAGA TGGTGGAGGT TCGGAGCT 58

<210> 70

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:12

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<210> 71

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:13

<400> 71

GATCCTCTGT TTCTGTGGGT ATGAAGCCGA GTCCCTAGGCC TGGTGGAGGT TCGGAGCT 58

<210> 72

<211> 50

<212> DNA

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<223> Complimentary chain for ssDNA of SEQ ID:13

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<211> 58

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<223> Coding chain for peptide of SEQ ID:14

<400> 73

GATCCCATCT TCAGTCTATG AAGCCTCGTA CTCATGTGTT GGGTGGAGGT TCGGAGCT 58

<210> 74

<211> 50

<212> DNA

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<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:15

<400> 75

GATCCATTCC TAATGCTGAG ACTTTGCGTC AGCCTGCGCG TGGTGGAGGT TCGGAGCT 58

<210> 76

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:15

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<223> Coding chain for peptide of SEQ ID:16

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<210> 78

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:16

<400> 78

CCGAACCTCC ACCAAGATCA TGCGGATGCC ACGAACTGAT GACGCGAACG 50

<210> 79

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:17

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<210> 80

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:17

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<210> 81

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:18

<400> 81

GATCCTATAC TATGCATCAT GGGTCGACGT TTATACGGCG GGGTGGAGGT TCGGAGCT 58

<210> 82

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:18

<400> 82

CCGAACCTCC ACCCCGCCGT ATAAACGTCG ACCCATGATG CATA GTATAG 50

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<211> 58

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<223> Coding chain for peptide of SEQ ID:19

<400> 83

GATCCTCGAT GATGCATGTG AATATTGTC TCGGGATTCT TGGTGGAGGT TCGGAGCT 58

<210> 84

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:19

<400> 84

CCGAACCTCC ACCAAGAACATC CCGAGACGAA TATTCACATG CATCATCGAG 50

<210> 85

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:20

<400> 85

GATCCCGGCC GATGCATCAT ATGAAGAGTC TGTATCGGGC GGGTGGAGGT TCGGAGCT 58

<210> 86

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:20

<400> 86

CCGAACCTCC ACCCGCCCCA TACAGACTCT TCATATGATG CATGGCGCG 50

<210> 87

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:21

<400> 87

GATCCATGAT GCAGAGGGAT CATCATCAGC ATATGCGCAG GGGTGGAGGT TCGGAGCT 58

<210> 88

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:21

<400> 88

CCGAACCTCC ACCCCTGCCG ATATGCTGAT GATGATCCCT CTGCATCATG 50

<210> 89

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:22

<400> 89

GATCCATGAA GACTCATCAT GGTATAATG CGGTGTTCT GGGTGGAGGT TCGGAGCT 58

<210> 90

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:22

<400> 90

CCGAACCTCC ACCCAGAAAC ACCGCATTAT TACCATGATG AGTCTTCATG 50

<210> 91

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:23

<400> 91

GATCCTTGGAA GCCGCTTCCT CATACTCCTC GGATGTATGC GGGTGGAGGT TCGGAGCT 58

<210> 92

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:23

<400> 92

CCGAACCTCC ACCCGCATAAC ATCCGAGGAG TATGAGGAAG CGGCTCCAAG 50

<210> 93

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:24

<400> 93

GATCCCAGCT GTATGAGCCT GATTCTGGGC CGTGGCTCC GGGTGGAGGT TCGGAGCT 58

<210> 94

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:24

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<211> 58

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<223> Coding chain for peptide of SEQ ID:25

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<210> 96

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:25

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<223> Coding chain for peptide of SEQ ID:26

<400> 97

GATCCCATCA TCCTATGTAT TCTATGACTA GGGCGTTGCC TGGTGGAGGT TCGGAGCT 58

<210> 98

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:26

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<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:27

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<210> 100

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:27

<400> 100

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<210> 101

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:28

<400> 101

GATCCCATT GCCTTGATG CAGTATCATA TGTGGGTAC GGGTGGAGGT TCGGAGCT 58

<210> 102

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:28

<400> 102

CCGAACCTCC ACCCGTACCC GACATATGAT ACTGCATCAA AGGCGAATGG 50

<210> 103

<211> 58

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:29

<400> 103

GATCCTATGC GCATATGACG ATGCCGTCTC GGTTTTGCC GGGTGGAGGT TCGGAGCT 58

<210> 104

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:29

<400> 104

CCGAACCTCC ACCCGGAAA AACCGAGACG GCATCGTCAT ATGCGCATAG 50

<210> 105

<211> 52

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:30

<400> 105

GATCCGTTG TCCGCCTACG CAGTCTCGGT ATTGCGGTGG AGGTTCGGAG CT 52

<210> 106

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:30

<400> 106

CCGAACCTCC ACCGCAATAC CGAGACTGCG TAGGCGGACA AGCG 44

<210> 107

<211> 52

<212> DNA

<213> Artificial Sequence

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<223> Coding chain for peptide of SEQ ID:31

<400> 107

GATCCGCTTG TAATGGCATG TTGGCCTTTC AGTGGCGGTGG AGGTTGGAG CT 52

<210> 108

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:31

<400> 108

CCGAACCTCC ACCGCACTGA AAGGCCAAC A TGCCATTACA AGCG 44

<210> 109

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:32

<400> 109

GATCCGCTTG TACGCCGAAG CCGGGCAAGC ATTGGCGGTGG AGGTTGGAG CT 52

<210> 110

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:32

<400> 110

CCGAACCTCC ACCGCAATGC TTGCCCCGGCT TCGGGCGTACA AGCG 44

<210> 111

<211> 972

<212> DNA

<213> Artificial Sequence

<220>

<223> HPR coding artificial sense-sequence

<400> 111

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gagctaagat cagaccctcg tattgccgcg agcaiccttc gtcttcactt ccacgactgc 180
tttgttaatg gttgtgacgc atcgatcttgc tttagacaaca caacatcatt tcgaacagag 240
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<210> 112

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<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

<400> 112

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<210> 113
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<223> Primer for PCR multiplication

<400> 113
gttatgccca accaaacccc accaagcaag 30

<210> 114
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<400> 114
tgttgtctaa caagatcgat gcgtcacaac cattaacaaa gcagtcgtgg aagtgaagac . 60
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tgttgtctaa caagatcgat gcgtcacaac 30

<210> 116
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<400> 117

atcgatcttg tttagacaaca caacatcatt 30

<210> 118

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<400> 119

tcttctgccc aaaggaactc tccaagaagg 30

<210> 120

<211> 120

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<211> 30

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<210> 124

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 124

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<211> 30

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

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<210> 126

<211> 120

<212> DNA

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<223> Primer for PCR multiplication

<400> 126

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<223> Primer for PCR multiplication

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<212> DNA

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<223> Primer for PCR multiplication

<400> 129

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cgtatccgttgc ctttgtggc tggctgttgc atcaccacccg aatgtatccgtt taccgacccgt 1620
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ggccggcatgtatgc 1695

〈210〉 135

〈211〉 120

<212> DNA

<213> Artificial Sequence

220

<223> Primer for PCR multiplication

<400> 135
gtttatgcga atcagactcc gccttctaag gcgcgggtg gaggttcgtat ggcagctaaa 60
gacgtaaaat tcggtaacga cgctcgtgtg aaaatgcgtgc gcggcgtaaa cgtactggca 120

<210> 136
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<223> Primer for PCR multiplication

<400> 136
gtttatgcga atcagactcc gccttctaag 30

<210> 137
<211> 120
<212> DNA
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<220>
<223> Primer for PCR multiplication

<400> 137
gagcaacgga aacaccatct ttggtgatgg tcggtgacc gaaagattta tccagaacta 60
cgttacggcc tttggaccg agggtaactt tcactgcatt tgccagtacg tttacgcccgc 120

<210> 138
<211> 30
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<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 138
gagcaacgga aacaccatct ttggtgatgg 30

<210> 139
<211> 120
<212> DNA
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<220>
<223> Primer for PCR multiplication

<400> 139
agatggtgtt tccgttgctc gtgaaatcga actggaaagac aagttcgaaa atatgggtgc 60
gcagatggtg aaagaagtig cctctaaagc aaacgacgct gcaggcgacg gtaccaccac 120

<210> 140

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 140

agatggtgtt tccgttgctc gtgaaatcga 30

<210> 141

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 141

aaccgctttg tcgataccac gtttcaggtc catcggttc atgcccgcag caacagctt 60

cagacccatca gtgatgatag cctgagccag tacgggttgcgatgggttgc cgtcgccctgc 120

<210> 142

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 142

aaccgctttg tcgataccac gtttcaggtc 30

<210> 143

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 143

gtggtaatcga caaagcggtt accgctgcag ttgaagaact gaaagcgttg tccgttaccat 60

gctctgactc taaagcgatt gctcagggttgc taccatctc cgctaactcc gacgaaaccg 120

<210> 144

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 144

tggttatcga caaaggcggtt accgctgcag 30

<210> 145

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 145

tcaaccacgt ccagttcgtc ctgcagacccg gtaccgtctt caacggtgat aacgccttct 60

ttaccgactt tgtccatcgc ttcagcgatc agttiacctt cggtttcgtc ggagtttagcg 120

<210> 146

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 146

tcaaccacgt ccagttcgtc ctgcagacccg 30

<210> 147

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 147

gacgaactgg acgtgggttga aggtatgcag ttgcaccgtg gctacctgtc tccttacttc 60

atcaacaagg cgaaaactgg cgcagttagaa ctggaaagcc cgttcatcct gctggctgac 120

<210> 148

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 148

gacgaactgg acgtgggttga aggtatgcag 30

<210> 149

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 149

cttcgccttc tacatcttca gcgatgataa gcagcggtt gcctgcttg gcaacagctt 60

ccagaaccgg cagcatttcg cggatgttgg agatttctt gtcagccagc aggatgaacg 120

<210> 150

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 150

cttcgccttc tacatcttca gcgatgataa 30

<210> 151

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 151

tgaagatgtt gaaggcgaag cgctggcaac tgctgttgtt aacaccattt gtggcatcgt 60

gaaagtgcgtt gcggtaaag caccggctt cggcgatcgt cgtaaagcta tgctgcagga 120

<210> 152

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 152

tgaagatgtt gaaggcgaag cgctggcaac 30

<210> 153

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 153
cacaacacgt ttagcctgac ccaggcttc cagggttgct tttccagct ccataccgat 60
ctttcagag atcacggta cgcgcgtcg ggttgcgata tcctgcagca tagctttacg 120

<210> 154
<211> 30
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<220>
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<400> 154
cacaacacgt ttagcctgac ccaggcttc 30

<210> 155
<211> 120
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<400> 155
gtcaggctaa acgtgttgtg atcaacaaag acaccaccac tatcatcgat ggcgtggtg 60
aagaagctgc aatccagggc cgtgttgctc agatccgtca gcagattgaa gaagcaactt 120

<210> 156
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<220>
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<400> 156
gtcaggctaa acgtgttgtg atcaacaaag 30

<210> 157
<211> 120
<212> DNA
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<220>
<223> Primer for PCR multiplication

<400> 157
tcttcattt caacttcgtt agcagcaccc actttataa ctgcaacgcc gcctgccagt 60
ttcgctacgc gttccgtcag ttttcacgg tcgtgtcg aagtgttc ttcaatctgc 120

<210> 158

<211> 30
<212> DNA
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<220>
<223> Primer for PCR multiplication

<400> 158
tctttcaitt caacitcggt agcagcaccc 30

<210> 159
<211> 120
<212> DNA
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<220>
<223> Primer for PCR multiplication

<400> 159
accgaagt~~t~~ aatgaaaga gaaaaaagca cgcgttgaag atgccctgca cgcgaccgt 60
gctgcggtag aagaaggcgt gg~~t~~gtcggtt ggtgg~~t~~ttt c~~g~~ctgatccg c~~g~~tagcgtct 120

<210> 160
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 160
accgaagt~~t~~ aatgaaaga gaaaaaagca 30

<210> 161
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 161
agttaatac gatctgacgc agcggagctt ccattgcacg cagtgcact ttgataccca 60
cgttctggtc ttcgttctga ccacgcagg~~t~~ cagccagttt agacgc~~t~~acg cggatcagcg 120

<210> 162
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 162

agttaatac gatctgacgc agcggagctt 30

<210> 163

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 163

gcgtcagatc gtattgaact gcggcgaaga accgtctgtt gttgctaaca ccgttaaagg 60

cggcgacggc aactacggtt acaacgcagc aaccgaagaa tacggcaaca tgcgtacat 120

<210> 164

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 164

gcgtcagatc gtattgaact gcggcgaaga 30

<210> 165

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 165

caggtcggtt accatgcatt cggtggtgat catcaggcca gccacagaag ctgcgtactg 60

cagagcagaa cgagttacit tggttgggtc caggataccc atgtcgatca tggccgtt 120

<210> 166

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 166

caggtcggtt accatgcatt cggtggtgat 30

<210> 167

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 167

ttacatcatg ccgccccatgc caccatgcc gcccataccg ccagcagcgc ctaagtgc 60

tgcattttt ttcggcaggc cggttaaccat gcatt

95

<210> 168

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 168

aggcctcgag ttacatcatg ccgccccatgc 30

<210> 169

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 169

ttacatcatg ccgccccatgc caccatgcc gcc 33

<210> 170

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

<400> 170

Tyr Ala Gln Thr Pro Pro Ser Arg

1 5

<210> 171

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

<400> 171

Leu Tyr Ala Gln Gln Thr Pro Pro Ser Arg Ser Arg
1 5 10

<210> 172

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

<400> 172

Val Tyr Ala Asn Gln Thr Pro Pro Ser Arg Ala Arg Ala Lys Ala Arg
1 5 10 15

<210> 173

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

<400> 173

Val Tyr Ala Asn Gln Thr Pro Pro Ser Lys Ala Arg Tyr Ala Gln
1 5 10 15
Thr Pro Pro Ser Arg
20

<210> 174

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:170

<400> 174

GATCCTATGC GCAGACTCCG CCTTCTCGGG GTGGAGGTTC GGAGCT 46

<210> 175

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:170

<400> 175

CCGAACCTCC ACCCCGAGAA GGCGGAGTCT GCGCATAG 38

<210> 176

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:171

<400> 176

GATCCCTCTA TGCGAACAG ACTCCGCCTT CTCGGTCTCG GGGTGGAGGT TCGGAGCT 58

<210> 177

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:171

<400> 177

CCGAACCTCC ACCCCGAGAC CGAGAACCGG GAGTCTGTTG CGCATAAGAG 50

<210> 178

<211> 70

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:1

<400> 178

GATCCGTTTA TGCAGAACATCG ACTCCGCCTT CTCGCGCACG CGCAAAGGCG CGGGGTGGAG 60

GTTCGGAGCT 70

<210> 179

<211> 62

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:1

<400> 179

CCGAACCTCC ACCCCGCGCC TTTGCGCGTG CGCGAGAAGG CGGAGTCTGA TTGCGATAAA 60

CG 62

<210> 180

<211> 82

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:1

<400> 180

GATCCGTTTA TGCAGAACATCG ACTCCGCCTT CTAAGGCGCG GTATGCGCAG ACTCCGCCTT 60

CTCGGGGTGG AGGTTCCGAG CT 82

<210> 181
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Complimentary chain for ssDNA of SEQ ID:1

<400> 181
CCGAACCTCC ACCCGAGAA GGCGGAGTCT GCGCATACCG CGCCTTAGAA GGCGGAGTCT 60
GATTCGCATA AACG 74